THE ROCKEFELLER UNIVERSITY

pro bono humani generis

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Dr John Mekalanos
Harvard

Dear John:

It was a great pleasure to meet you at Dorigan's seminar.

Re toxin/phage relationships, I have been loosely tracking the story on C. tetani for a long time, wondering if Sanfelice had been a *very* early anticipator of our current insights. For decades, what little comment there was assumed that he had spore contamination.

I'm still not clear whether any *phage* has been implicated. Do you know any more than what follows?

Yours sincerely,

Joshua Lederberg

p56b~
p276

Authors
Finn CW Jr. Silver RP. Habig WH. Hardegree MC. Zon G. Garon CF.
Title
The structural gene for tetanus neurotoxin is on a plasmid.
Source
Science. 224(4651):881-4, 1984 May 25.
Abstract

A pool of synthetic oligonucleotides was prepared based on the amino terminal amino acid sequence of tetanus toxin. This probe hybridized to plasmid DNA isolated from three toxigenic strains of Clostridium tetani but not to plasmid DNA from a nontoxigenic strain. These results show that the structural gene for the toxin is on the plasmid. The pCL1 plasmid from one of the toxigenic strains spontaneously deleted 22 kilobase pairs of DNA to form pCL2. Strains harboring this deleted plasmid are nontoxigenic. However, the probe mixture hybridized to pCL2, indicating that the DNA encoding the amino terminus of the toxin had not been deleted. Restriction